

WHAT IS CLAIMED IS:

1 1. A liquid ejecting head, comprising:
2 a passage unit, having a nozzle opening, a pressure generating chamber
3 communicating with the nozzle opening, and a reservoir holding a liquid to be
4 supplying to the pressure generating chamber;

5 a head case, on which the passage unit is attached;
6 a pressure generating element for applying variance of pressure to the
7 pressure generating chambers, accommodated in a space defined in the head
8 case; and

9 a head substrate, closing an opening of the space of the head case,
10 wherein an air sealing member is disposed between the head case and the
11 head substrate.

1 2. The liquid ejecting head as set forth in claim 1, wherein the air sealing
2 member is disposed between a sealing end face being opposed to a passage unit
3 side of the head case and the head substrate.

1 3. The liquid ejecting head as set forth in claim 1, wherein the air sealing
2 member is disposed so as to surround a periphery of the openings of the head.

1 4. The liquid ejecting head as set forth in claim 1, wherein the air sealing
2 member is comprised of a low elastic material.

1 5. The liquid ejecting head as set forth in claim 4, wherein the low elastic

2 material is a gel material.

1 6. The liquid ejecting head as set forth in claim 2, wherein the air sealing
2 member is a molded elastic part.

1 7. The liquid ejecting head as set forth in claim 2, wherein the air sealing
2 member is an elastic sealing material having semi-fluidity.

1 8. The liquid ejecting head as set forth in claim 1, wherein an opening through
2 which a conducting wire is passed is formed on the head substrate; and
3 wherein the opening of the head substrate is sealed.

1 9. The liquid ejecting head as set forth in claim 1, wherein a through hole for
2 leaking a gas formed on the head substrate is sealed by a sealing treatment.

1 10. The liquid ejecting head as set forth in claim 1, wherein the liquid ejecting
2 head is served for an ink jet recording apparatus.

1 11. The liquid ejecting head as set forth in claim 1, wherein a groove is formed
2 on either the head case or the head substrate; and
3 wherein the air sealing member is disposed in the groove.

1 12. The liquid ejecting head as set forth in claim 11, wherein a protrusion is
2 formed on either the head case or the head substrate so that the protrusion is
3 opposed to the groove formed on other one of either the head case or the head

4 substrate; and
5 wherein the air sealing member disposed in the groove is crushed by the
6 protrusion.

1 13. A liquid ejecting head, comprising:
2 a passage unit, having a nozzle opening, a pressure generating chamber
3 communicating with the nozzle opening, a reservoir holding a liquid to be supplying
4 to the pressure generating chamber, and a vibrating plate closing openings of the
5 pressure generating chamber and the reservoir;
6 a head case, on which the passage unit is attached; and
7 a pressure generating element for applying variance of pressure to the
8 pressure generating chambers, accommodated in a space defined in the head
9 case,
10 wherein an air sealing member is disposed between the head case and the
11 pressure generating element so as to form a space portion defined between the
12 vibrating plate and the air sealing member.

1 14. The liquid ejecting head as set forth in claim 13, wherein a plurality of
2 pressure generating elements are accommodated in the space of the head case.

1 15. The liquid ejecting head as set forth in claim 13, wherein the pressure
2 generating element has an elongated shape in which a longitudinal direction thereof
3 is parallel to a vibrating direction of the vibrating plate.

1 16. The liquid ejecting head as set forth in claim 13, wherein a space portion

2 between an inside face of the space in the head case and the pressure generating
3 element is formed to be narrow toward the side of the vibrating plate.

1 17. The liquid ejecting head as set forth in claim 16, wherein the air sealing
2 member is disposed at a part of the space portion which becomes narrower.

1 18. The liquid ejecting head as set forth in claim 13, wherein the air sealing
2 member is comprised of a low elastic material.

1 19. The liquid ejecting head as set forth in claim 18, wherein the low elastic
2 material is a gelled material.

1 20. The liquid ejecting head as set forth in claim 13, wherein the air sealing
2 member has insularity.

1 21. The liquid ejecting head as set forth in claim 13, wherein the liquid ejecting
2 head is served for an ink jet recording apparatus.